

A radiation image pick-up apparatus includes a conversion element, accumulation element, read element, detection element, driving circuit, and controller.

5 The conversion element converts radiation into an
electrical signal. The accumulation unit accumulates
the electrical signal converted by the conversion
element. The read unit reads out the electrical signal
accumulated in the accumulation unit. The detection
10 element detects the start and end of irradiation of the
radiation. The driving circuit accumulates the
electrical signal in the accumulation element
responsive to the detection of start of irradiation of
the radiation, and drives the read element responsive
15 to the detection of the end of irradiation of the
radiation, based on the detection result of the
detection element. The controller controls the driving
circuit. A radiation image pick-up system is also
disclosed.